

## 114 Faraday's Researches

*electrolytical* will be understood at once: muriatic acid is electro-lytical, boracic acid is not.

401. Finally, I require a term to express those bodies which can pass to the *electrodes*, or, as they are usually called, the poles. Substances are frequently spoken of as being *electro-negative*, or *electro-positive*, according as they go under the supposed influence of a direct attraction to the positive or negative pole. But these terms are much too significant for the use to which I should have to put them; for though the meanings are perhaps right, they are only hypothetical, and may be wrong; and then, through a very imperceptible, but still very dangerous, because continual, influence, they do great injury to science, by contracting and limiting the habitual views of those engaged in pursuing it. I propose to distinguish such bodies by calling those *anions* ^ which go to the *anode* of the decomposing body; and those passing to the *cathode*, *cations* ;<sup>2</sup> and when I have occasion to speak of these together, I shall call them *ions*. Thus, the chloride of lead is an *electrolyte*, and when *electrolysed* evolves, the two *ions*, chlorine and lead, the former being an *anion*, and the latter a *cation*.

402. These terms being once well defined, will, I hope, in their use enable me to avoid much periphrasis and ambiguity of expression. I do not mean to press them into service more frequently than will be required, for I am fully aware that names are one thing and science another.<sup>3</sup>

403. It will be well understood that I am giving no opinion respecting the nature of the electric current now, beyond what I have done on former occasions (19, 253); and that though I speak of the current as proceeding from the parts which are positive to those which are negative (399), it is merely in accordance with the conventional, though in some degree tacit, agreement entered into by scientific men, that they may have a constant, certain, and definite means of referring to the direction of the forces of that current.

<sup>1</sup> *dvL&v that which goes up.* (Neuter participle.)

- *KOLTL<JL>v that which goes down.*

<sup>3</sup> Since this paper was read, I have changed some of the terms which were first proposed, that I might employ only such as were at the same time simple in their nature, clear in their reference, and free from hypothesis.